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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/775,315	02/01/2001	Hyun-Sook Jung	41671/DBP/Y35	8247
23363 7590 12/29/2006 CHRISTIE, PARKER & HALE, LLP PO BOX 7068 PASADENA, CA 91109-7068			EXAMINER MERCADO, JULIAN A	
			ART UNIT	PAPER NUMBER
			1745	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		12/29/2006	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 09/775,315	Applicant(s) JUNG ET AL.	
	Examiner Julian Mercado	Art Unit 1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 28, 2006 has been entered.

Claims 1-4 and 11 are pending.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 11 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 11 in line 6 has been amended to recite that the lithium manganese oxides and the lithium nickel cobalt oxides remain distinct chemical species.... This limitation is considered to be new matter. At the outset, the examiner notes that prior amendments have been drawn to the opposite configuration, e.g. claim 10 as submitted on January 29, 2004 recites “[a] positive

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active material for a rechargeable battery comprising *a chemically bonded mixture* of lithium nickel cobalt oxides and lithium manganese oxides...” in lines 2-3 (emphasis added, claim 11, as noted in the August 24, 2006 Office action, recites the same features of prior claim 10 insofar as claim 11 similarly recites a positive active material having the same metal oxides). The limitation is considered new matter since what is disclosed as a chemically bonded mixture cannot also support a mixture which remains as a distinct chemical species. The disclosure has been reviewed but is found completely silent in supporting the instant lithium manganese oxides and the lithium nickel cobalt oxides as distinct chemical species.

Applicant also did not also refer to any specific portion of the disclosure, but merely recites that “[t]he amendments find full support in the original specification, claims and drawings.” Please provide support to the original specification—to do so would aid the examiner in determining proper compliance with 35 U.S.C. 112, first paragraph.

Notwithstanding, page 7 in the second full paragraph of the specification teaches that a chemical bond between the lithium manganese oxides and the lithium nickel cobalt oxides is desirably achieved within a specific heat-treatment temperature range, and “[d]uring the heat-treatment, the binder is removed by evaporating and the chemical mixture (reactant) is obtained.” This portion of the disclosure is cited to show its incompatibility (and resultant new matter issues raised) with the present amendment—the examiner cannot reconcile how the original disclosure which teaches a chemically bonded mixture support this same mixture as remaining distinct in chemical species.

Claim 11 in line 9 recites a second binder. This limitation is considered to be new matter. No citations for support in the original disclosure have been provided. The disclosure has been

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reviewed, but is found completely silent in supporting a second binder. It appears to the examiner that only one binder is disclosed. See Examples I and 4, which discloses only a single binder (PVDF).

Claim Rejections - 35 USC § 103

The rejection of claim 11 is rejected under 35 U.S.C. 103(a) based on Mayer (U.S. Pat. 5,783,333) has been withdrawn in this Office action in view of the 35 U.S.C. 112, first paragraph rejection set forth above. As the examiner had relied on Mayer to teach or at least suggest the previously claimed “chemically bonded mixture” of lithium nickel cobalt oxides and lithium manganese oxides, a chemically bonded mixture teaching by the prior art cannot also be a distinct chemical species. The examiner reserves reinstating the prior ground of rejection, should the language in claim 11 revert back to its original format from July 31, 2006.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pynenburg et al. (U.S. Pat. 5,429,890) in view of Hasegawa et al. (U.S. Pat. 5,370,948).

The rejection is maintained for the reasons of record. The examiner notes that claims 1-4 are submitted for consideration as previously presented. The scope of the present claims is the same as that previously considered in the prior Office action.

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Applicant's sole argument relies on the Declaration under 37 C.F.R. § 1.132 as filed on December 1, 2005. Applicant submits that the experimental results noted therein exhibit unexpected and desirable results compared to mixtures of the same oxides in a weight ratio of greater than 1. In reply, the examiner maintains the position set forth in the prior Office action that these results are not persuasive. As set forth in the prior Office action, the comparative examples are based on a $\text{Li}_{0.98}\text{Ni}_{0.82}\text{Co}_{0.18}\text{O}_2$ compound and not a $\text{LiNiMn}_2\text{O}_4$ compound as otherwise taught by the prior art or as otherwise claimed. The "Overall Results" are also not found commensurate with the comparative data. See, for example, the discharge capacity of Example 2 at 158 (said to be "Good") as compared to the discharge capacity of Comparative Example 2 at 162 (said to be "No Good"). The examiner reasserts the following inquiry: how can a higher discharge capacity of 162 be "No Good" when compared to a lower discharge capacity of 158?

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian Mercado whose telephone number is (571) 272-1289. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan, can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications


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may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



jam



DAHWEIYUAN
PRIMARY EXAMINER